

LNG ACCESS WORKSHOP SUMMARY OF PRESENTATIONS

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Prepared By:

Aspen Environmental Group

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Prepared By:

Suzanne Phinney
Aspen Environmental Group
Sacramento, CA
Contract No. 700-02-004

Prepared For:

California Energy Commission

Mary Dyas
Contract Manager

David Maul
Project Manager

David Maul
Manager
Natural Gas Office

Rosella Shapiro
Deputy Director
Fuels and Transportation Division

B.B. Blevins
Executive Director

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Table of Contents

LNG ACCESS WORKSHOP SUMMARY OF PRESENTATIONS

Introduction.....	1
Summary of Presentations	1
Day One Presentations.....	1
<i>Proposed LNG Projects and Associated Infrastructure.....</i>	1
Dave Maul, Natural Gas Manager, California Energy Commission*	1
John Dagg, Director of Gas Operations, Southern California Gas Company*	1
Henry Morse, Manager of North Baja Pipeline (NBP) Project for TransCanada*	2
<i>The Global LNG Market and Access Issues</i>	3
Jim Jensen, Jensen and Associates*	3
Dr. Michelle Foss, Chief Energy Economist, Center for Energy Economics, the University of Texas at Austin*	5
Dr. Paul Carpenter, Principal, The Brattle Group*	5
<i>Financing of LNG Supply Projects.....</i>	6
Richard Chinloy, Director, Corporate & Structural Financing, Australia and New Zealand (ANZ) Banking Group*	6
Paul Clifford, Senior Vice President, Standard Chartered Bank*	7
Dino Barajas, Esq., Partner, Paul, Hastings, Janofsky, and Walker.....	8
<i>Views of Potential LNG Customers and Traders</i>	8
Jim Harrigan, Vice President, Southern California Gas Company	8
Bob Howard, Vice President, PG&E*	9
Brad Barnds, Vice President Fuels, Calpine*	9
Norman Pedersen, Southern California Generation Coalition (SCGC)* ...	10
Steve Mussell, General Manager, Special Projects, U.S. West Coast, Chevron Global Gas*	10
Marcellus Catalano, CEO, Alea Trading*	10
<i>Public Comment (Day One)</i>	11
John Ulrich, Chemical Industry Council (CIC)*	11

Ernest Knolle, Knolle Magnettrans	11
Steven Arita, Western States Petroleum Association.....	11
Jesus Arredondo, Californians for Clean, Affordable, Safe Energy (Cal Case)	11
Steve Heckeroth.....	11
Dorothy Rothrock, California Manufacturers Association	12
Bob Hoffman, Peru LNG*	12
Jay Berger, Innovative Marketing.....	12
Dominic DiMare, California Chamber of Commerce	12
Mike Bowman, California Business Roundtable.....	12
Day Two Presentations	13
<i>Deliverability of LNG Supply</i>	<i>13</i>
Mark Hayes, Research Fellow, Stanford University*	13
Roger Roue, Senior Advisor, Society of International Gas Tanker and Terminal Operators (SIGTTO) London, England*	13
Commander Bill Drelling, U.S. Coast Guard	14
The Honorable John Olsen, Consul-General, Australian Consulate, Los Angeles, CA	14
Andy Weisman, Energy Ventures Group*	15
Bill Powers, Border Power Plant Working Group*	15
Lawrence Smith, Q.C., Partner, Bennett Jones (Calgary, Alberta)*	16
<i>Views of Offshore LNG Project Developers on Market Access and Supply Issues</i>	<i>17</i>
Steve Meheen, Project Manager, BHP Billiton's Proposed Cabrillo LNG Deepwater Port*	17
Paul Soanes, President, Crystal Energy LLC, Proposed Clearwater LNG Deepwater Port*	18
Simon Bonini, President, Woodside Natural Gas	18
<i>Strategies for Addressing Consequences of LNG Supply Interruption – Natural Gas Storage and Pipeline Slack Capacity</i>	<i>19</i>
David Taylor, Director of Gas Transmission, Southern California Gas Company*	19
Wayne Tomlinson, Director of Market and Project Analysis, El Paso Pipeline Company*	20

Federal Government Perspective.....	21
Keith Lesnick, Director for Deepwater Port Projects, U.S. Maritime Administration*	21
Wrap up Review of LNG Access and Market Issues	21
Jim Jensen, Jensen & Associates.....	21
Public Comment (Day Two)	22
Joe Armendariz, Carpenteria	22
Don Facciano, Ventura County Taxpayers Association	22
Hank Lecayo, Congress of California Seniors.....	22
Jesus Arrendondo, CalCASE	22
Woodrow Clark.....	23
Dave Puglia, Western Growers	23
Rock Zierman, California Natural Gas Producers Association	23
Comments Received from Organizations that Did Not Make Verbal Presentations	23
Jim Conran, Consumers First.....	23
Bill Drombowski, California Retailers Association	23
Barbara LeVake, California Women for Agriculture.....	24
Nancy Lindholm, Oxnard Chamber of Commerce.....	24
Marine Engineers' Beneficial Association	24
Sempra LNG	24
Shell Trading Gas & Power	24
Anna-Marie Stouder, California Restaurant Association	25
Peru LNG	25
Vic Weisser, California Council for Environmental and Economic Balance	25

Introduction

The California Resources Agency, in cooperation with the California Energy Commission and the California Public Utilities Commission, held a workshop on June 1 and 2, 2005, in Sacramento, California regarding Liquefied Natural Gas Access Issues and Deliverability of Supply. Transcripts of the workshops, presentations, and written comments received are available at http://www.energy.ca.gov/lng_docket/documents/index.html.

The primary purpose of this report is to provide a summary of the verbal presentations made at the workshop. In many cases, those who made verbal presentations provided slides or written comments that provide significantly more detailed information than is summarized in this report. Therefore, an asterisk (*) has been placed by the name of each presenter who provided slides or written comments that are available at the website. In addition, this report summarizes the written comments received from organizations that did not make verbal presentations.

Summary of Presentations

Day One Presentations

Proposed LNG Projects and Associated Infrastructure

Dave Maul, Natural Gas Manager, California Energy Commission*

This conference looks at general policies dealing with offshore LNG projects. There are several LNG projects under consideration for the west coast. LNG projects include: California (Crystal Clearwater Port and the BHP Cabrillo Port are offshore; Mitsubishi Long Beach project is onshore), Baja California (Chevron and Moss-Maritime are offshore; Semptra is onshore), British Columbia (2 projects) and Oregon (4 projects).

This conference is not examining project-specific issues.

John Dagg, Director of Gas Operations, Southern California Gas Company*

SoCalGas' system was originally designed to take gas towards the LA Basin. The gas enters the system in non-load centers at the Colorado River,

Blythe/Needles area, at Kramer Junction, and in the San Joaquin Valley. It is distributed to load centers in the LA Basin (60%), San Joaquin Valley system, and Coast system. The system also includes gas storage fields (total of 122 Bcf available capacity) located in LA Basin (one inside and one just outside), one on the coast, and one in the Playa Del Rey area.

The system is designed around a one in 35 year cold date for the core load, and a one in ten year cold date for the firm non-core load. Demand ranges from 1.9 billion (summer) to up to 5 billion+ (winter). Winter load is driven by core demand, and summer load is driven by electricity generation demand.

LNG could enter the system at Otay Mesa, Long Beach, or Oxnard, where pressure to move gas is the lowest. Modifications to the system would be required. If more than one LNG project delivered gas into the system, the costs for modifications would be substantially more than for any one individual project. Because LNG would enter into load centers, and users there would be relying on that gas, a complete interruption would have a greater impact than an interruption at one of the current receipt points.

Henry Morse, Manager of North Baja Pipeline (NBP) Project for TransCanada*

The NBP system starts in Ehrenberg, Arizona, crosses the Colorado River south of Blythe, heads south where it enters Mexico, heads southwest to Mexicali, then ultimately interconnects with the Transportadora de Gas Natural (TGN) pipeline. Three power plants in Mexico constitute the major load, about 400 MMcf per day peak. Typical use is about 200 to 250 MMcf per day. Other industrial users are at 5 MMcf per day. Even if these uses grow, there will still be excess gas from the 1 Bcf per day LNG terminal under construction in Baja California.

The U.S. portion of the pipeline is owned by a subsidiary of TransCanada and the Mexican portion (Gasoducto Bajanorte or GB) is owned by a subsidiary of Sempra. The pipeline was originally designed to move gas from Arizona to Southern California and Baja California and not to distribute LNG. Gas flow would need to be reversed in order to move excess gas from the proposed LNG terminals to other markets.

Two shippers have contracted to use TGN, GB, and NBP when LNG starts to be delivered at the Sempra terminal. When this LNG arrives, the direction of pipeline flows will change. North Baja Pipeline itself may be importing up to 900 MMcf per day of gas from Mexico to California. Permitting and construction is expected to be completed by the fourth quarter, 2007. A new pipeline would be built to connect the terminal to the GB system and a direct connection would be needed between NBP and SoCalGas. A second open season to solicit other shippers was just held. Another pipeline along the current right-of-way of the existing pipeline would be needed. Another option to bring gas to California is an

additional pipeline from Otay Mesa up to the SoCalGas system at the San Diego/Riverside border. NBP could also provide gas to El Paso that then could be put into Line 1903 for movement north to PG&E.

The potential for natural gas to be hoarded by Mexico does not exist because their own power plants rely on it and there are no other markets for the gas within Mexico.

The Global LNG Market and Access Issues

Jim Jensen, Jensen and Associates*

Until recently, LNG has been a regional fuel essentially dedicated to Japan, Korea and Taiwan. Rapid growth of European and North American LNG markets together with growth in the Atlantic Basin and Middle East supply is making LNG more of a global commodity. There have been major changes in the Atlantic, Pacific and Middle East areas. The Middle East is now turning its attention from the East to the West. The Atlantic Basin is growing the most rapidly. Because they can't keep up with the European market, the Middle East has stepped in. Middle East is more reliant on long-term contracts. The Atlantic Basin has become a flexible arbitrage market.

There is a small but growing short-term market for LNG, and long-term contracts are becoming less rigid and more flexible. Short-term contracts are still only 11.2 percent of total sales volume. Sale and purchase agreements (SPAs) have been the norm, where the buyer takes the volume risk, and the seller takes the price risk. The LNG chain is a chain of capital investments with the terminal being the smallest part. No LNG train has yet been launched without some sort of long-term anchor financing. Suppliers may take a risk and go with part coverage, leaving some volume uncovered and available for the flexible market. Import terminals represent the transition facilities between the different operating models of gas competition – commodity supply and project supply.

The industry is moving toward self-contracting, where LNG is sold to affiliate downstream companies to reach retail customers directly. This system provides flexibility for the companies. Destinations are defined by the portfolio of receipt terminals and marketing assets that companies have. Similarly, those companies who already have market position downstream now want to integrate upstream – for example, the Chinese and the Japanese have negotiated equity positions in some production facilities.

The LNG market is different from the domestic gas market because: 1) LNG is traded in very large cargos; 2) LNG competition is among a limited number of projects; and 3) there is a large difference in transaction activity (e.g., number of wells versus number of trains) between conventional gas and LNG.

Open access bridges the downstream view (treating LNG terminals as transportation) and the upstream view (treating the terminals as production facilities). Europe tends to be taking the downstream view, although the U.K. has taken an upstream view with the South Hook project. The decision to require open access for terminals must weigh the advantage of greater commodity competition against the possible risk to LNG trade investment.

System contracting (seller integrates downstream through “self-contracting” with their own marketing affiliates) rather than destination contracting (specific liquefaction facilities are linked with specific customers) provides flexibility by allowing suppliers to re-direct cargoes to appropriate markets. While this may be more costly for an individual cargo, it is cheaper to maintain surplus capacity in terminals than in either tankers or liquefaction facilities.

Firm projects globally are up to about 9 million tons per year, with probable projects at 14.8 million tons per year, and the possible projects at around 31.3 million tons per year.

The Asia Pacific import demand has increased about four million tons of LNG equivalent over the past decade, and may increase to 7 tons per year after 2010. China and the North American west coast market are the wild cards in the future. China is moving from a command and control economy to a market economy and it is not clear that the market will be there if LNG is imported. California brings into play “basis risk,” that is, if you overload the market, you break a pricing structure. The supply to the northeast Asian market and the Pacific Basin has become very tight over the past two years. Despite this current tightness, there are a large number of potential new supplies (Australia, Indonesia, Middle East) available to the region. The conflict between current market tightness and looming contract expirations will be a significant factor in new contract negotiations.

Price arbitrage, which links prices, is emerging in global LNG markets. Arbitrage in the Pacific Basin is through the Middle East. The Middle East can either ship east or west, and that transmits price signals between these two markets. Distances in the Pacific Basin will make arbitrage more difficult. Pricing arbitrage in the Atlantic Basin will tend to link North America and European LNG pricing, while Middle East price arbitrage will link Asian and Atlantic Basin pricing. Pacific Basin arbitrage will be complicated by the long distances involved, and by the fact that without Bolivia, the Pacific Basin lacks a vital western hemisphere arbitrage partner.

Qatar is the Henry Hub equivalent of international markets. It is cheaper to displace Pacific Basin supplies than it is to deliver directly from Qatar.

Finally, gas to liquids is not going to replace LNG or really compete with it.

Dr. Michelle Foss, Chief Energy Economist, Center for Energy Economics, the University of Texas at Austin*

A number of factors play into whether LNG can be viewed as a commodity; non-standardization of LNG (cargos can vary from location to location) and purchase and sales contracts; availability of uncommitted ships; port compatibility; impediments to infrastructure construction; and financing. Freeport LNG is a good example of how terminal access issues have been handled.

The owner use model is very prevalent; existing LNG terminals were originally built for single users. The benefit of this approach is maximum operating flexibility; the drawback is that the financial commitment can be very expensive. For only third-party use, a benefit is customer flexibility and a drawback is difficulty in contracting flexibility. Mixed third-party use is more difficult to develop; misalignment of interests between owner and customers can be a problem, as well as a lack of transparency. Everything would need to get worked out in the terminal use agreement. There is a lack of multi-user terminal experience in the industry. This suggests that entities should be allowed to experiment. Overall, flexibility and reliability is not cheap; it's difficult to build in additional or spare capacity for flexibility.

Trinidad and Tobago, although not a large reserve holder, is a leader in the concept of the Gas Exporting Countries Forum. This forum is not really a cartel, but a way for exporting countries to participate in the LNG value chain in ways they want, and can include local development, local benefits, and a larger share of profits. National oil companies see liquefaction as a way to extend and protect their national interests. This may be something that the US will need to consider in the future.

LNG terminals could be operated with flexible access conditions and it would be unlikely that capacity would be held on a purely speculative basis. The owner-operator model would be best where risks are large or undefined, especially offshore projects.

There are a number of LNG proposals that couple LNG development with conventional gas storage, which could help developers take advantage of price swings and deal with different customer needs.

Dr. Paul Carpenter, Principal, The Brattle Group*

LNG regulatory policy should promote gas-on-gas competition, permit economic LNG projects to be built, and not discriminate between rival projects. Third-party access can promote gas-on-gas competition, but can threaten supply security by increasing the risks of the project. LNG terminals are like pipelines in a number of ways where concerns over multi-users of pipelines need to be worked out. It appears that FERC's Hackberry exception will be codified in legislation. This

would remove any ability of FERC to impose access conditions, or to require information disclosure. This is contrary to the position that FERC recently took regarding the Alaska Pipeline Project.

The European Gas Directive, published in 1998, implements policies for a Europe-wide competitive market, where security of supply is a key concern. The gas directive requires third-party access, unless an exemption is granted. Exemptions can be granted if: 1) project risks are such that the LNG terminal would not be built due to investment risk; 2) the exemption would enhance competition; 3) the exemption would enhance security of supply; and 4) the exemption would not harm the core regulated system. The United Kingdom has granted three exemptions, but with conditions, including a “use it or lose it” requirement, information disclosure, and strict “ring fencing” if the LNG operator is affiliated with the downstream pipeline operator. An exemption can be removed if there is exercise of market power. Italy and France have required LNG terminals to set aside 20 percent and 10 percent of capacity, respectively, for third-party use. Spain requires 25 percent of terminal contracts to be short-term (< 2 years) in duration.

Security of supply needs to be considered specific to the State. California has diversity of natural gas supply, but natural gas is very important to electricity generation, particularly for peak times, and this use will grow. West-coast LNG terminals are unlikely to affect future gas prices unless the State builds significant excess capacity. Who holds that capacity will be important.

Southern California has unique circumstances that need to be considered. More gas can be delivered to the state than can be received by in-state pipelines, access is not available on an unbundled basis, and SoCalGas has no incentive to expand total receipt point capacity since it is not required to serve non-load entities without firm contracts with them. This makes finding anchor buyers for new gas supplies (either pipeline or terminal) difficult. Third-party access with open seasons and electronic bulletin boards for secondary trading should be available for LNG terminals in California.

In response to a question, Dr. Carpenter indicated that it doesn’t matter so much where gas gets delivered but more where the pressure on the gas bubble will occur, and how that will impact prices.

Financing of LNG Supply Projects

**Richard Chinloy, Director, Corporate & Structural Financing,
Australia and New Zealand (ANZ) Banking Group***

There is currently about 40 Bcf of throughput terminal capacity, with only about 17 or 18 Bcf delivered, resulting in excess capacity. The high gas prices in the

US are driving LNG development, but present a risk. There is probably room for about 6 regasification facilities in the U.S. Closed access offers a fairly simple financing structure and expedites the financing process. Open access, while feasible, would probably require a longer process.

There are four types of financing structures:

1) Tolling or terminal use agreement (TUA) provides contracted capacity and is the preferred format in the US and Europe. Tolling is a take-or-pay type contract for capacity. The terminal operator does not take title to any of the LNG itself. A strong credit standing of the counterparty, either the supplier (push) or gas buyer (pull) is essential. The toll is a fronting-type contract to obtain financing and provide lenders with some type of stable cash flow stream.

2) Integrated – a series of interrelated contracts linking the entire chain. The end user agrees to a firm volume take and sets the economics of the transaction (take- or-pay). Some price risk flows back to suppliers through “net-back” adjustments. The lender has to look at the entire chain to see where the risks are. Major producers are prevalent as sponsors.

3) Rate base/utility type financing which is based on corporate credit; and

4) Merchant, which is largely un-contracted and which would be difficult for the financing parties to get involved in.

Tolling appears to be the likely financing model, moving away from the take-or-pay model. Traditional long-term contracts may become shorter and more flexible. Lending terms may become more flexible as the industry matures.

Paul Clifford, Senior Vice President, Standard Chartered Bank*

LNG represents about 80 to 90 percent of the gas used in Japan, Korea, and Taiwan, and the cost can be easily absorbed in the rate base in those countries. In contrast, LNG is only about 2 percent of the US natural gas supply and must compete with domestic gas sources and with pipeline gas. Short term LNG trades have been growing, with 8 to 10 percent of total LNG sales now short-term, mostly in the Atlantic Basin. There are sponsors like BP and Shell that have the trading flexibility, shipping flexibility, and re-gas flexibility to trade cargo options to different markets. There is limited flexibility to easily trade or move different cargos from one place to another on short notice. LNG export projects in Asia have long-term sale purchase agreements with large government-owned utilities that have strong credit ratings. The regas terminals have been financed by the buyer. Now the super majors and the gas traders are players. There has been a loosening of the contract volume and price terms, with shorter term contracts, optional cargo rights and destination flexibility. Some contracts have been structured with a floor price. Lenders will want to compare a project with other

projects to determine whether the contracts will be renegotiated. Lenders are going to be concerned with contract rights. With interdependence of the contracts and one single source of cash flow, there has to be agreement across the entire chain as to who gets paid first (typically regas terminal and ships).

In the U.S., there are 2 models: the Cheniere model, where the terminal owner has sold capacity rights, usually to the super majors; and the super majors themselves acquiring or building capacity. The latter are likely to do balance sheet financing. Financing contract models include: merchant with its volume and price risk; partial contracts; and tolling, with fixed capacity reservation payments regardless of actual use. Typically, the larger terminals have better cost economics. The exact financing structures in the U.S. will depend on who the players are and what their business strategies are. Both private sector super major developers and national oil companies (Qatar, Nigeria) have raised the issue of security of access to end markets. Whether managed access will work depends on the project particulars and whether the base reserve capacity is sufficient to support the financing.

Dino Barajas, Esq., Partner, Paul, Hastings, Janofsky, and Walker

The lending market is hungry for U.S. projects. Marketability of projects will depend on location and who comes to market first. California is a particularly desirable location. Probably no more than eight projects will be developed. Projects that are supported by sponsors with a strong balance sheet stand a better chance. California should consider using the closed access model, with open access a possibility several (e.g., three) years down the road. This would also promote full utilization. California needs to promote an investment friendly environment or LNG projects will go elsewhere. If more terminals get built (excess capacity), the public will benefit since prices would come down in the short-term in order to sell gas to service debt.

Views of Potential LNG Customers and Traders

Jim Harrigan, Vice President, Southern California Gas Company

SoCalGas has staggered contracts for natural gas with different suppliers over the next three to five years, with first rights of refusal. Contracting for LNG should follow the same pattern. Core LNG contracts are treated as interstate capacity, and so would require CPUC approval. With respect to LNG, SoCalGas wants to: 1) ensure that the diversity offered by LNG translates into reliability (uniform daily quantities) and low cost gas; 2) use the guidance and experience in CPUC Decision 0409022; 3) limit ratepayer and shareholder risk; and 4) design its portfolio to allow for LNG but not to be dependent on LNG. For interstate

capacity, SoCalGas doesn't rely on arbitrage to get gas, and doesn't think arbitrage is appropriate for LNG.

SoCalGas is dealing with the many questions posed by LNG. If LNG is to be viewed as a substitute for interstate capacity, should SoCalGas contract for regasified LNG or just gas? If SoCalGas contracts exclusively for LNG, how does it verify that it was in fact LNG? What is the appropriate pricing mechanism – city gate monthly index, border monthly index, basin monthly index, market basket index? How many suppliers should be involved, and should there be a diversity of start dates? How should supply interruptions be addressed? Contracting must be timely, with an upfront approval process. It is unlikely that all these issues will be resolved before the contracting process is completed.

Bob Howard, Vice President, PG&E*

PG&E buys gas for over 3.9 million gas customers. Demand fluctuates from 800 Mmcf/day to 1.5 Mmcf/day. As natural gas prices increase, the Henry Hub/SoCal border basis shrinks. PG&E, as a pipeline operator, cannot attract LNG supplies. Storage is a vital part of its system. PG&E offers storage service on an open access basis. Storage could be used for LNG. Because recent investments in natural gas production and infrastructure will allow more Rockies gas to move east, it is critical to access new supplies. The only new sources are Alaska (however, not for another 10 years) and LNG. PG&E is trying to get a California-based study to look at the effects of high natural gas prices on California's economy. It thinks that there will be a very tight supply/demand balance. PG&E would consider buying LNG if it were competitive, and if it came to California, not the Gulf. The company is looking at an interconnection to Line 1903, which would allow access to LNG.

Brad Barnds, Vice President Fuels, Calpine*

Calpine is a strong proponent of both LNG and Alaskan gas. Calpine is the single largest consumer of gas in North America. Calpine is looking at LNG as a developer (proposed Oregon terminal¹), contract holder (directly with the entity that holds the physical gas), purchaser, and offtaker. It sees itself as an anchor tenant on LNG contracts. Term, volume and price are considerations. Calpine is able to go out and contract for supplies in the open market since it is not subject to regulatory oversight. U.S. demand ranges from 1.7 Bcf/day (average) to 4.0 Bcf/day (peak). Calpine is very interested in long-term reliable gas supplies in California, particularly Northern California. LNG is important for a balanced portfolio, both for Calpine and for the state. The market should provide choices, including utility options and non-utility options. There needs to be a level playing field, transparent pricing, and the right number of market players. The regulatory environment should not mandate courses of action.

¹ PG&E estimates that it would cost about \$200 million to get this LNG to its main line facilities.

Norman Pedersen, Southern California Generation Coalition (SCGC)*

SCGC consists of seven electric generators with all generation (12,000 MW) located in the Southern California load center. Electric generators want to see increased liquidity, increased gas supplies and increased diversity of suppliers. Access issues relate to: 1) tanker access to terminals (avoid open access conditions that would make projects uneconomic); 2) terminal access to pipelines (recent CPUC actions are commendable); and 3) customer access to LNG supplies at utility receipt points (wants to keep current flexibility in SoCalGas system and not be tied down to specific receipt points). Gas transmission and storage infrastructure adequacy are also concerns. SCGC recommends that individual generators be allowed to tailor their solutions to security problems and that a “one fix suits all” policy be avoided.

Steve Mussell, General Manager, Special Projects, U.S. West Coast, Chevron Global Gas*

Chevron consumes about 500 Mmcf/day, roughly split between refining, marketing, production and cogeneration. California needs additional natural gas supplies, including LNG. California should look to the Japan experience for how to co-exist with LNG. The market should be open to both utilities that use regasified LNG for core/non-core customers, and to non-utility customers. There is a difference between where the physical gas flows and where the contractual relationships exist.

Marcellus Catalano, CEO, Alea Trading*

Alea Trading would deal with LNG suppliers directly, take title to the possession in a foreign port and deliver that LNG to California. They focus on the short-term market (typically one to multiple shipments of fixed price, fixed volume and even a set date). The more access, the better, although an integrated mix of baseload in the range of 80 to 90 percent is best. Short-term deliveries can then fill in the gap. Diverted cargoes are not a problem since all three parties (supplier, marketer, consumer) must all agree to the diversion, and would share in the profit off that diverted cargo.

If California elects to go with some amount of open access, Alea Trading feels the firm can already take advantage of the active trading going on in Asia, providing customers with the best price. It is not tied to any one supplier, as a terminal owner might be. Currently there are no American firms that control any U.S. LNG port capacity. Trading firms are advantageous to suppliers as well, since they are familiar with customer needs, and in the U.S. there are hundreds of potential LNG customers, whereas historically LNG suppliers have worked with only 10 to 20 firms.

Public Comment (Day One)

John Ulrich, Chemical Industry Council (CIC)*

CIC voices strong support for the development of LNG facilities in California. CIC members are feeling the effects of high oil and natural gas prices. California must have reliable and competitively-priced natural gas. California should develop LNG receiving terminals in the state.

Ernest Knolle, Knolle Magnettrans

Knolle Magnettrans specializes in magnetic levitation technology. The U.S. “throws away” 4 trillion cubic feet of gas in Alaska and his firm can bring it down to California via an LNG land bridge, which would cost \$1.50 per Mcf.

Steven Arita, Western States Petroleum Association

The siting of LNG facilities on the west coast in strategic market locations is critical to meeting the natural gas demand of the western states. Infrastructure to bring in LNG is needed. CEC should ensure that LNG facilities are given fair and robust consideration in the development of future energy and infrastructure needs. CEC's recent report advances the knowledge and understanding of LNG safety.

Jesus Arredondo, Californians for Clean, Affordable, Safe Energy (Cal Case)

Cal Case helps educate the public about the benefits of LNG. Natural gas is a critical component for electricity production in the state. California needs to diversify its supply of natural gas.

Audience Question: Given history and energy markets, airlines, telecom, why is LNG infrastructure different? That is, why should we not expect a capacity surplus with impacts to global LNG prices by 2015 to 2020.

Jim Jensen reply: Those who believe there will be shortages of natural gas in the future prevail today. Oil companies use a much lower gas price to justify projects (pg. 272).

Steve Heckeroth

Oil production has been declining two percent per year since 1970, and imports have been increasing at four percent and is peaking. Oil serves as the trial run for natural gas. Distributed generation is advantageous over LNG and fossil fuels.

Dorothy Rothrock, California Manufacturers Association

Manufacturers encourage investment in new energy supplies. LNG is essential to keeping electricity prices low and ensuring reliable supplies of power. A ten percent increase in the amount of natural gas supply (e.g., one to two LNG terminals) could reduce gas prices 10 to 20 percent, with positive effects to the state's economy. The state is urged to come to a positive conclusion about LNG and its role in the future of California's economy.

Bob Hoffman, Peru LNG*

Peru LNG filed a letter dated May 25th. Peru LNG has not made any commitment to anyone (e.g., Lazaro Cardinas) with respect to its LNG supplies. Peru is planning on gasifying 620 Mcfd, about 60 cargos a year.

Jay Berger, Innovative Marketing

LNG can make an important and positive contribution to the future of California.

Dominic DiMare, California Chamber of Commerce

Fuel diversity and neutrality are necessary components of the state's energy policy. The Chamber supports the development of LNG facilities in California to increase diversity and make energy more reliable and less expensive. Conservation is important but is not enough. Manufacturers' gas bills have doubled in the last four years. Swift action is needed to bring LNG to the state.

Mike Bowman, California Business Roundtable

Economic vitality and growth require access to a reliable and affordable energy supply. The cost of doing business in California is 30 percent higher than in other western states and energy costs are 127 percent higher. The state must establish a reliable energy future. LNG should be part of that future. The state is encouraged to lead discussions that involve all stakeholders.

Day Two Presentations

Deliverability of LNG Supply

Mark Hayes, Research Fellow, Stanford University*

Stanford University has been looking at the history of cross border gas trade projects. Three LNG projects (Arun Indonesia; Qatar; Atlantic LNG in Trinidad) and three pipelines (Europe, South Africa, North Africa) were studied. In the 1970s to late 1990s (Old World), LNG trade was best imagined as floating pipelines. Countries like Japan wanted very stable supplies and they could pass those costs on to their customers. Over the three decades, there were relatively few interruptions in deliveries, with only one case of an OPEC-style embargo by a supplier (Algeria) trying to withhold supply to drive up price. There were very few technical failures; most were due to political unrest. Suppliers were generally able to make up for those interruptions. No pipeline transit countries engaged in strategic behavior to interrupt gas supplies. This situation would likely persist into the future given that LNG trades are a small part of broader political considerations between countries.

In the New World (2000 and beyond), there is more flexibility. Because of seasonal peaks (e.g., in Japan, Korea and California), there are opportunities for flexible arrangements where cargos could defer on an average basis every year. The liberalization of gas and electricity markets is driving the shift to more liberal trade. However, with more debt financed utility-like projects, the ability to take advantage of opportunities is limited. Gas quality differentials could be a potential constraint to fluid trading between markets. California should focus on market security, not supply security. More LNG is going to lower price levels. Pacific Basin arbitrage is going to be slow to develop but not impossible and access requirements could limit opportunities. If California locks in supply similar to what Japan has historically done, it will be at the expense of price.

Roger Roue, Senior Advisor, Society of International Gas Tanker and Terminal Operators (SIGTTO) London, England*

SIGTTO represents liquefied petroleum gas (LPG) and LNG ship and terminal operators. It deals with technical rather than commercial matters. Carrier transports of LNG are approaching 44,000. Despite the strong safety record, there have been incidents which the industry has learned from. The strong safety record has been achieved through: 1) initial high standards; 2) industry technical cooperation; 3) learning from experience (e.g., the Cleveland and Tellier accidents); 4) standards and codes (e.g., NFPA 59A and EN1473); 5) training; 6) ship vetting and inspection, including inspections by classification societies; and 7) written procedures. Disasters are not the result of lack of regulation but the lack of compliance. Automated emergency shutdown systems and control systems are built in to counteract human error. The European Standards Committee for EN1473 and EN1474 is going to be developing guidelines for offshore transfer systems, in addition to the existing guidance provided by ABS.

The Skikda incident involved a hydrocarbon leak that was picked up by the forced draft fan that provided combustion air to the boiler. Boiler pressure increased and caused a runaway reaction, including a vapor cloud explosion.

Commander Bill Drelling, U.S. Coast Guard

The USCG is actively involved with safety and security based on its authority under the Magnuson Act, the Ports and Waterways Act, and the Marine Transportation Security Act. Any vessel that comes into US waters must give 96 hours advance notice of its arrival. (This time period would be required even for diverted spot cargos). The USCG screens this information against the historical record it has compiled and inspects the vessel accordingly. Information about the last five ports of call, crew members, international ship security certificate, and onsite security plan must be provided. The latter must identify how access to the vessel and to restricted areas is controlled. The LNG vessel must have processes for receiving stores and bunkers, monitoring the vessel, responding to incidents, addressing increased levels of maritime security levels, and training of personnel. An annual security drill is required. The vessel must be equipped with a ship security alert system and an automatic identification system (which allows the USCG to track the vessel).

The USCG may board the vessel and do either a port security boarding or a positive controlled boarding (where armed USCG are posted). The USCG escorts vessels and creates safety and security zones. Vessels that have visited one of the five ports with inadequate anti-terrorism measures in place must show that they have performed certain actions while they were in those ports, including attempting to execute a declaration of security.² Armed guards are required if these vessels enter a US port.

The USCG conducts exercises with the U. S. Navy like one that was recently conducted in the Port of Los Angeles and Long Beach. The USCG fleet is being re-capitalized. New marine safety and security teams have been created. There are now area maritime security committees, consisting of the military and federal, state, and local agencies that all work together to secure a port. There is also a national maritime security committee. The USCG is developing mechanisms to address terrorist actions, such as the commandeering of a vessel.

The multiple levels of control (security at the previous port, security on board the vessel, USCG security, and port security) would limit stowaway incidents.

The Honorable John Olsen, Consul-General, Australian Consulate, Los Angeles, CA

On Jan. 1 2005, the U.S. and Australia entered into a free trade agreement. California is important to Australia as it serves as the port of entry for much of Australia's import and export traffic. Australia has 143 Tcf of natural gas which could provide stable deliveries to the U.S. for the next 40 years. Australia is a reliable supplier of LNG and has an impeccable safety record with 1700 shipments without incident. Australia is a stable

² The Declaration of Security provides a means for ensuring that critical security concerns are properly addressed and security will remain in place throughout a vessel's activities within a port. It generally addresses the protective measures for the waterfront facility and vessel and the responsibility for each.

investment environment. It has a regulatory infrastructure in place to drill for gas in an environmentally appropriate manner. It is an ally of the U.S.

Andy Weisman, Energy Ventures Group*

Natural gas prices have tripled, brought about by the building of natural-gas fired power plants, and these price increases are the tip of the iceberg. Natural gas developers in the US are not engaging in the exploratory development and drilling of new fields which are needed to hold supplies of gas constant because they think the market will be flooded with LNG. Rather they are concentrating on increasing the density of drilling in existing fields. In the near future, North American supplies could begin to decline very rapidly. EIA projections are that 87 percent of incremental natural gas supply will come from either LNG or Alaska pipeline gas. The U.S. does not put enough resources into determining reserves. Another concern is what happens to LNG prices if oil prices skyrocket? The U.S. needs an integrated energy plan and cannot rely totally on the market.

With respect to LNG, the U.S. must augment supplies and the price of LNG must not be tied to the price of oil. California must be 100 percent sure that the supply will be available, otherwise price volatility will increase. Surety of supply can only happen if LNG is contracted on a firm, long-term basis and if the State increases its storage facilities. With this in mind, the question becomes "what should California's policy be with respect to shorter term sales?"

Spot market deliveries can lower prices in the short-term but they could have extremely negative long-term price implications. It might be best not to allow those sales at all. The LNG spot market is different from the pipeline gas spot market because with the latter, you know the well will be there. That may not be the case for LNG if a spot cargo can achieve a better price elsewhere. So, there may be times that the portion of the LNG supply that is not subject to long-term, firm contracts, will disappear as supply delivered to the U.S. market. This already happened last year. Lake Charles was almost closed down in March 2005 because the U.S. was outbid by other markets. This becomes a bigger problem in the future if the U.S. becomes dependent on larger amounts of spot cargos. California must consider whether to be proactive or reactive in dealing with this issue.

In terms of what constitutes flooding the market with LNG, the answer is probably enough LNG to drive the price down. Open access will only partially solve the problem of a spot cargo being sent elsewhere because of a better price.

Bill Powers, Border Power Plant Working Group*

The Japanese LNG market is tied to oil prices whereas the U.S. market is not. Therefore, it doesn't make sense to compare U.S. and Japan LNG prices. DOE has recommended a complete zeroing out of the R&D budget for oil and gas exploration almost as if it were on the LNG bandwagon. Any LNG access that is granted should be at the convenience of the State and not at the convenience of the LNG developers. California demand for natural gas has declined by 20 percent over the past four years. EIA projections show that domestic production will increase modestly over the next 20

years. Sempra's "doomsday" projections are inaccurate. Energy conservation measures are the most cost-effective options for reducing demand.

California has been missing in action in the push for a legislative remedy to natural gas market gaming. The Commodity and Exchange Act needs to be reformed. In hearings at the CPUC, El Paso indicated that California utilities should maintain pipeline capacity even if LNG is used to replace pipeline gas.

The problem for California is market power. Partners in the Shell-Sempra project control 50 percent of the gas trading market. Transactions between Sempra and its affiliates (SoCalGas and SDG&E) are inevitable. Also, Mexico is less stable than either Canada or the U.S. so there could be a problem if California becomes reliant on gas from Mexico. The current California approach would have rate-payers taking the risk. Moving LNG into the Gulf of Mexico will have the same beneficial effect on the California market as moving that gas to California.

Changing the specification for natural gas quality could increase air emissions. The onus should be on LNG suppliers to meet ARB specifications and not on California to accommodate the suppliers.

LNG is not a necessity for California. The function (if any) of LNG should be gas-on-gas spot market competition. If the market leveled out at \$5 per MMBtu and spot markets could be brought in for \$4 per MMBtu, some price relief could result. Utility core contracts should be explicitly prohibited between affiliates and partners of affiliates to minimize the potential for non-transparent contracting. Spot market cargo model will work for at least five or six years and that model puts the price risk on the supplier and not the ratepayer. The best advantage for California would be open access terminals where any supplier could deliver LNG.

Lawrence Smith, Q.C., Partner, Bennett Jones (Calgary, Alberta)*

Several LNG facilities have been recently approved by provincial governments³ in the Canadian Maritimes, an area similar to Baja California since the Maritimes, like Baja, are cut off from the rest of Canada in terms of gas supply. There is a transit pipeline treaty between the U.S. and Canada so if Canadian regasified LNG entered into California, it would be under this treaty.

In terms of access, developers should be able to establish contracts and make use of the facility wholly. Terminals should be configured to accept cargos from as many places as possible. However, because of the very large financial commitments required to build terminals, developers have been allowed exclusive control of facilities. No operators are asking for third-party access. Access should be limited if the goal is to secure additional supply, particularly long-term supply. Jurisdiction over Canadian gas imports and exports is at the federal level. Many of the LNG projects have the export market as the anchor tenant.

Some imports may get re-export permits. Three principal agreements cover the export of Canadian gas (including imported LNG). Major provisions of these include:

³ Provincial approval would be appropriate since "an LNG regas facility is just a tank farm with a box to warm up the LNG and pumps to put it at pressure into the mainline system."

- Free Trade Agreement, 1989 (which enhanced GATT protections, and is only between Canada and U.S.): no export prices or taxes that are discriminatory; in event of shortfalls, prorating of available gas to the existing users
- NAFTA, 1994 (expanded to include Mexico) and Environmental Side Letter: regulators should do all they can to avoid disrupting long-term contracts; Canada is not required to export any particular proportion of its gas supplies in times of shortages (disputed by the U.S.); proportionality protections to a U.S. buyer do not apply to Mexican exports (however, GATT does not allow parties to freely restrict exports without regard to “equitable sharing of international supply”)
- Transit Pipeline Treaty, 1977: agreement not to interfere with hydrocarbon throughputs, and not to discriminate in terms of tolls, taxes, or charges.

The principal benefit of the FTA and NAFTA was the “let the market work” approach. The market has a lot of flexibility to fill in where there are supply problems so California may not need to be prescriptive in addressing supply issues.

The principal benefit of the environmental side letter was publicity because it would be hard to prove a jurisdiction was not enforcing its laws.

Mexico has more deference over the control of natural resources than a literal reading of GATT might permit. GATT is not a simple document to understand, and it operates more by international conventions similar to international trade law.

Views of Offshore LNG Project Developers on Market Access and Supply Issues

Steve Meheen, Project Manager, BHP Billiton’s Proposed Cabrillo LNG Deepwater Port*

California has been a net natural gas importer, and importing LNG would be like importing gas via a western pipeline. The southern pipeline (Baja) would again be an LNG supply. California should encourage investment in natural gas supplies, and investment in natural gas infrastructure. However, there should be no discriminatory regulation passed that differentiates one natural gas supply from another. The Deepwater Port Act explicitly states that the deepwater port can be exclusive for its builder. An open access port does not provide any advantage and in fact provides a disadvantage to the consumer. A rate structure to allow for open access to the port would diminish BHP Billiton’s ability to manage its investment (about \$650 million for the terminal). It is possible that BHP Billiton would consider managed access if it were not supplying natural gas through its port. However, the capacity may be best held for an arbitrage opportunity. Should its port application be approved, BHP Billiton would supply LNG from its Pilbara LNG project (feeds off of the Scarborough gas field) and the time frame would be about 2010.

Paul Soanes, President, Crystal Energy LLC, Proposed Clearwater LNG Deepwater Port*

New natural gas supplies are needed for California. LNG will further augment and improve California's diverse natural gas supply. LNG imported to California will stay in California since there are very limited off-system rights from the SoCalGas system. This will increase supply security and will have a dampening effect on the price of natural gas. LNG supplies from other states or regions will be less secure.

Crystal's LNG project will use existing infrastructure (Platform Grace) and will not have LNG storage, both of which will significantly reduce costs of the project. Capital cost for infrastructure will be less than \$250 million. Lower terminal cost means lower cost to the consumer which is important since California's unique gasification requirement increases upstream costs. Low cost provides more flexibility to the customer.

Crystal intends to be an independent terminal service provider. It will contract with the most price competitive and most reliable supplies in the Pacific Basin. The terminal will operate as a tolling facility. Crystal will not take title to the LNG or the processed natural gas. This approach allows gas customers and gas suppliers to have bilateral agreements and to work directly with one another. Crystal intends to have a foundation customer (potentially Woodside at 80 percent capacity usage) to underpin financing of the terminal.

It is not likely that capacity would be reserved and not used, as sometimes happens with pipelines. Remaining capacity would be available for use by other market participants or other LNG suppliers. Crystal sees this as short-term capacity release similar to what currently exists on the interstate pipelines. Because Crystal will realize its financial return from the terminal itself, it is motivated financially to make sure that capacity is fully utilized. The benefits of this approach are: 1) it increases gas-on-gas competition; 2) it increases gas supply security (the terminal would not be captive to a single supply project); it allows for direct contracting between customers and LNG suppliers; and it reduces market power concerns since Crystal will not take title to the LNG or gas.

Market access is not about what the terminal access rules are, but rather what the access rules are to get to the end market itself. In order for LNG to be a reliable and long-term supply to California, LNG projects must have firm and reliable access to the SoCalGas system, and there should be fair and reasonable system rights. Cost of upgrades needed for the importation of LNG should be allocable based on displacement as opposed to expansion of the current SoCalGas system.

Simon Bonini, President, Woodside Natural Gas

Woodside has 16 years experience producing and shipping LNG, and has served Japan and Korea under long-term contracts. In 2002, it won a 25 year supply contract to China. It operates major projects with development opportunities in Australia: Northwest Shelf (26 Tcf); Browse (20 Tcf); and Pluto (3 Tcf). For new projects, the estimated startup date would be around 2011 but that possibly could be earlier if California entered the market. The large quantity of Woodside's gas supply enhances reliability. The similar culture and existing trade, tax, and investment treaties between the U.S. and Australia also enhance reliability. The company has never failed to deliver LNG on schedule.

Woodside has an agreement with Crystal Energy to help develop Clearwater Port. The LNG business is a very long-term business, and is built on relationships enhanced by reliability and dependability. A one-decade contract is a short-term contract. In order to provide California with natural gas for 20 to 30 years, Woodside must be able to meet California's needs with regard to reliability and price.

Safety is the top priority of the company and of the industry. Reliability is not possible without the best environmental and safety performance. The industry is highly regulated. The U.S. market is unique, and has peculiar characteristics which make terminal access key to exporters. No entity in the U.S. makes long-term commitments for natural gas as do the Japanese, for example. Market access underwrites the project, again not the case in Japan. Before FERC restrictions on access were removed, competition and innovation were stifled.

It is up to the industry to make LNG work for California. Because of the state's diverse supply of natural gas, Woodside must compete with current sources, and does not have any negotiating leverage with the state or with the U.S. Imported LNG will increase supply and decrease market price. Landing gas directly to California has the most dramatic downward impact on market price. Woodside is best served by supplying directly to California since the state is its closest port of call, the state has the biggest gas market, and there are good customers who reliably buy gas every day of the year.

Too much time is being spent on discussing the spot market, and the term "spot" is a total misnomer for LNG. Only a very small proportion of LNG is released from long-term commitments, and this is only with the agreement of buyer and seller. No single cargo of LNG has ever been traded by a true trader. Because LNG is such a capital intensive industry, gas needs to flow all the time; when it stops, cash flow stops and all parties get nervous. LNG production cannot be stopped and started at will.

Strategies for Addressing Consequences of LNG Supply Interruption – Natural Gas Storage and Pipeline Slack Capacity

David Taylor, Director of Gas Transmission, Southern California Gas Company*

Operators define slack capacity as the excess capacity that is available on any given day under any given demand/supply scenario. Regulators define slack capacity as an annual amount of capacity in excess of average annual supplies.

SoCalGas has a number of receipt points for natural gas, and LNG would constitute additional receipt points. Current receipt point capacity is just under 4 Bcf. However, on peak days, demand can exceed 5 Bcf. On some days, demand can be less than 2 Bcf, and there needs to be a place where the extra gas can go. Gas delivery depends on both flowing (pipeline) gas and gas from storage. Shortfalls can only be made up with storage withdrawal. There are some opportunities to expand the current storage system but a new greenfield storage system would not be cost effective. SoCalGas has a requirement for minimum flowing supply at Ehrenberg.

The gas system is flexible. The magnitude of supplies at any receipt point can vary. Because current receipt points are relatively distant from load centers, SoCalGas has time to react. During the course of a day, customers have four opportunities to nominate what supplies they want and where. It is difficult to react to large changes in supply during an inter-day basis.

Additional supply sources generally add to the reliability of the system. LNG imports would be large and therefore would need to flow continuously, with relatively uniform hourly flows to maintain system stability. LNG must be as reliable as current pipeline sources.

The ability to react to large gas supply interruptions depends on whether the interruption is planned or unplanned, what the demand is that day and where the interruption is located. When demand is high, both planned and unplanned interruptions are hard, if not impossible, to make up. A lot of flow changes on an inter-day basis are difficult to accommodate. If there was an unplanned interruption from an LNG source in Ventura, there would be time to withdraw gas from storage to serve the major load center. In Long Beach, the Playa Del Rey storage field could be tapped pretty effectively. At Otay Mesa, SoCalGas would rely on sufficient pack in the Blythe system. At Ehrenberg, if all supply was lost, there would be curtailment in the Imperial Valley area. El Paso's Line 1903 would help in this regard. Overall, supply interruptions to the latter three areas (Long Beach, Otay Mesa and Ehrenberg) would be more difficult to correct than to the former (Ventura). SoCalGas does not do any planning for non-core backup.

Wayne Tomlinson, Director of Market and Project Analysis, El Paso Pipeline Company*

El Paso welcomes LNG because of the imbalance between demand and supply in the U.S. California's gas portfolio is much more diverse than other states. Suppliers have options in most regions of the U.S. Gas can go in various directions depending on where the highest price is. Just having the infrastructure built in California does not guarantee that the supply will be available.

Other states in the Southwest, like Arizona, are important to California because of the electricity they deliver to the state.

El Paso has a north and south system. It is connected directly into three basins – Anadarko, Permian and San Juan – and is also connected to the Rocky Mountains. The north system is running at full capacity, while the south system is running about 50 percent load factor. There is excess pipeline capacity to California well out to 2009. There is 3 Bcf of uncontracted natural gas in California. California used to receive 80 percent of El Paso's delivery and now receives 48 percent. With the exception of the Everett terminal, there is a lot of volatility in U.S. LNG deliveries. Transwestern is considering expanding into Phoenix. EPNG will lose some of its Mexican market if LNG goes to Baja.

Federal Government Perspective

Keith Lesnick, Director for Deepwater Port Projects, U.S. Maritime Administration*

The U.S. Coast Guard handles the initial review of deepwater port applications, the environmental review, and the safety regulations and operating manual. The Department of Transportation and the Maritime Administration develop the record of decision for the license, including responding to federal agency comments. MARAD has granted three deepwater port licenses; one of the licensed facilities (Energy Bridge) is now operating. There are seven pending licenses and at least four more that are being prepared for submission. Any license must be granted within 330 days following notice of the application in the Federal Register. However, the clock may be stopped at any time during the process. The clock is currently stopped on the two applications offshore California.

Factors to be considered in making a decision include national interest, economic viability of the project, and a number of other factors. For MARAD, the benefits of deepwater ports are transportation related, particularly traffic in ports.

MARAD is very sensitive to the needs of the states. It is working in tandem with the states to make sure that what the agency is doing is acceptable. Should the Governor of California approve an application with a particular provision (e.g., an access requirement), MARAD would accept and enforce that provision.

Wrap up Review of LNG Access and Market Issues

Jim Jensen, Jensen & Associates

The two underlying issues of the conference have been security of supply and the open access. In terms of security of supply, as California moves from reliance on U.S. sources to sources from foreign countries, it may want to take the “chosen instruments supply approach.” California should look to what Japan has done because Japan was very sensitive to supply security. They purposely brought in new suppliers, including Qatar, despite higher prices. Now, the industry has a diversified set of suppliers. A flexible, short-term market has been built that enables the system to deal with upsets. California should be more relaxed at looking at the issue.

The contingency planning being done by the pipeline operators is impressive. Identifying challenges and how entities would deal with them can help identify where the problems really are.

Regulation is about protection of the consumer, but should also include an enabling function. If regulators go through the process and they decide that a project is worth doing, then they should push it forward and make sure it happens.

LNG projects are complicated and the dealings are fragile. Things can easily go wrong. This makes the industry nervous about open access. If you want access available to a

third party, you either have to create excess capacity in the system for them to use or you have to reduce the amount of the volume that would be put in the market. Open access came about initially in the U.S. and the U.K. with respect to pipelines because there were surplus gas supplies and infrastructure with spare capacity. The rest of Europe has been more reluctant to require open access. Interestingly, the U.K. now has a gas shortage and is reversing its open access rule for some LNG terminals.

The European open access precedent is in flux and California should use a solution that fits its own problems. California needs to identify what it would accomplish if it had open access because open access does represent some risk.

Public Comment (Day Two)

Joe Armendariz, Carpenteria

The Cabrillo Port project is gaining local support because it is a rational and responsible way to address California's current and future energy needs. The project would make the area less vulnerable to supply shortages, would provide millions of dollars to the economy, create hundreds of jobs, and support local community activities and organizations.

Don Facciano, Ventura County Taxpayers Association

The Cabrillo Port project will be a win-win for Ventura County and the state. California needs more and better supplies of natural gas. Hopefully, some consensus can emerge from the workshop.

Hank Lecayo, Congress of California Seniors

The Cabrillo Port project is a realistic plan that has the potential to bring a new and necessary source of energy to Ventura County and the state. California needs a steady and reliable supply of natural gas right now.

Jesus Arrendondo, CalCASE

California Council for Environmental and Economic Balance, Consumers First, the Oxnard Chamber of Commerce, California Retailers Association, California Restaurant Association, and California Women for Agriculture have submitted letters supporting the siting of LNG in California.

Audience Question

"On gas or LNG prices in the future, given the developing coupling in the U.S. between gas price and oil price in a Btu parity basis, elaborate (on) why gas prices may go down with LNG, given the potential for higher oil prices, and considering that experts believe that LNG terminals built in the U.S. will be limited to eight facilities and controlled by only a few players?"

Response by Mark Hayes: Some of the linkage that is seen in the market now between natural gas and oil prices is actually a legacy of the global contracting for LNG with explicit oil price linkages. There is also a linkage in the U.S. because natural gas is a substitute for some oil products. In some environments, natural gas is trading at Btu parity with the higher value fuel products. In the last two or three decades in the U.S., natural gas has been competing on the margins with lower value products (e.g., high sulfur fuel oil or residual fuels). You can get to the latter with maybe eight terminals. Also, the air quality regulations in California, which are spreading throughout the country, have driven the turn to natural gas rather than fuel oil, so it is not just a matter of economics.

Woodrow Clark

The Commissioners should see the Enron film. Markets and the government need to collaborate. Natural gas costs will be coming down. LNG should not be imported to California or anywhere else in the country. Alternatives to natural gas should be discussed. An insurance speaker at a recent LNG conference stated that they will not insure LNG facilities. Allowing deregulation or allowing market forces to take place is a mistake. The Commissioners should put together a task force to look at the numbers objectively and weigh all sides.

Dave Puglia, Western Growers

Every incremental increase in energy costs undercuts growers' ability to stay in business in the state. Their industry is energy intensive. California may be left without adequate natural gas supply. Offshore terminal siting is a responsible way to go.

Rock Zierman, California Natural Gas Producers Association

California instate gas producers are working hard to find new sources of instate natural gas. However, less than 1 Bcf of gas is produced per day and state demand is 6.5 Bcf. Gas producers are also heavy users of natural gas and have a need for stable prices. They support LNG.

Comments Received from Organizations that Did Not Make Verbal Presentations

Jim Conran, Consumers First

California needs to increase and diversify its natural gas sources. LNG is the only viable option for increasing the supply of safe, clean natural gas in the state. LNG offers the California consumer affordability and reliability, reduced costs and stabilized prices.

Bill Drombowski, California Retailers Association

LNG is an abundant source of clean fuel and should be provided to the State.

Barbara LeVake, California Women for Agriculture

Electricity is a vital part of California agriculture. A reliable, cost-effective supply of natural gas is critical to the growing and processing of California crops. LNG is needed in the state.

Nancy Lindholm, Oxnard Chamber of Commerce

Quality of life and economic health will be harmed if energy sources are not increased and diversified. LNG will provide a reliable and affordable source of energy.

Marine Engineers' Beneficial Association

There are significant and substantial national security concerns if LNG is allowed to be transported into California on ships that are crewed by foreign mariners. By operating vessels with U.S. Coast Guard certified U.S. citizen mariners working aboard the vessels, security sensitive LNG can be safely transported to the American people.

Sempra LNG

Sempra LNG is in the process of constructing a 1.0 Bcf/day LNG terminal in Baja California. The facility is fully subscribed by two separate competitors. A substantial portion of the natural gas could be transported to markets within California. Sempra supports policies, rules and regulations that allow natural gas competition to occur on a level playing field, irrespective of the physical location of a particular supply source. Delays in state proceedings (e.g., Gas Industry OIR) create significant and unnecessary regulatory uncertainty. Non-discriminatory access rights must be extended to new sources of supply.

Incremental natural gas supplies will increase competition and improve system reliability. Regulatory policies should encourage the connection of new supply sources, including regasified LNG. New supplies must have equal access to the state's transportation infrastructure. Utility core and non-core customers both should be able to benefit from portfolio diversification.

LNG supplies should be viewed no differently than flows from traditional sources of supply. Natural gas supply originating from an LNG terminal is secure and reliable, as it is the functional equivalent of interconnecting to a new basin.

Shell Trading Gas & Power

LNG supplies processed at the Costa Azul Baja facility will provide the same level of security and reliability as any existing or future in-state or interstate gas supplies that may be delivered to the California market; there are no legal or regulatory impediments in Mexico that would prevent this. The security and reliability of the supply will be addressed through the gas sale contracts. For sales with a gas utility, the PUC will have the opportunity to review the allocation of risk.

Delays in establishing access terms place all providers of new gas supplies at a competitive disadvantage compared to existing gas suppliers. The uncertainty prevents LNG suppliers from entering into contracts that may be considered under the “pre-approval” process adopted in PUC Decision 04-09-022. The terms and conditions of access that are developed by California’s regulatory agencies will determine the extent to which Shell’s LNG supply can be delivered to customers in California.

The preferred path for re-gasified LNG that is delivered to the California market from the Costa Azul facility is through a new Otay Mesa receipt point. Because of delays in PUC proceedings, there is now uncertainty regarding the rates, terms, and conditions for suppliers that seek to deliver gas through such a receipt point. This has caused suppliers to pursue other transportation alternatives that could result in the Costa Azul LNG supplies being sold to markets outside of California. The PUC proceedings should be accelerated and should address: 1) system integration of SoCalGas and SDG&E transmission systems; 2) terms and conditions under various agreements; 3) gas quality; and 4) nature of access rights for shippers that pay for an expansion of the utility’s receipt point capacity. Shell urges the State’s regulatory agencies to issue definitive decisions by the end of 2005.

Anna-Marie Stouder, California Restaurant Association

A steady flow of reliable and affordable energy is critical to the restaurant industry. Sources of natural gas should be expanded and LNG delivery should be expedited.

Peru LNG

Natural gas from South America will provide supply diversity while mitigating risk associated with Asia-Pacific LNG markets (e.g., increasing demands in other areas). Peru LNG is developing an LNG liquefaction facility and terminal, scheduled for completion 2009, on Peru’s Pacific coast for LNG export. Distances from Peru to California are much shorter than distances from Asia-Pacific LNG sources.

Vic Weisser, California Council for Environmental and Economic Balance

California must move toward energy security by importing LNG. If no action is taken, energy shortages will push California electricity rates above the national average.